

What is claimed is:

1. A light emitting device comprising an n-channel TFT and a light emitting element in each of pixels, the n-channel TFT comprising:
an active layer including:

a channel forming region;

an n-type impurity region (c) adjacent to the channel forming region;

an n-type impurity region (b) adjacent to the n-type impurity region (c);

and

an n-type impurity region (a) adjacent to the n-type impurity region (b);

a gate insulating layer provided over the active layer; and

a gate electrode provided over the gate insulating layer including:

a first gate electrode provided over the gate insulating layer; and

a second gate electrode provided over the first gate,

wherein the first gate electrode overlaps the channel forming region and the n-type impurity region (c) with the gate insulating layer therebetween, and

wherein the second gate electrode overlaps the channel forming region with the gate insulating layer therebetween.

2. A light emitting device comprising a driver circuit comprising a n-channel TFT, and pixel portion comprising a light emitting element, the n-channel TFT comprising:

an active layer including:

a channel forming region;

an n-type impurity region (c) adjacent to the channel forming region;

an n-type impurity region (b) adjacent to the n-type impurity region (c);

and

an n-type impurity region (a) adjacent to the n-type impurity region (b);

a gate insulating layer provided over the active layer; and

a gate electrode provided over the gate insulating layer including:

a first gate electrode provided over the gate insulating layer; and

a second gate electrode provided over the first gate,

wherein the first gate electrode overlaps the channel forming region and the n-type impurity region (c) with the gate insulating layer therebetween, and

wherein the second gate electrode overlaps the channel forming region with the gate insulating layer therebetween.

3. The light emitting device as claimed in claim 1, wherein the first gate electrode comprises one of tantalum nitride and titanium nitride, and the second gate electrode comprises tungsten.

4. The light emitting device as claimed in claim 2, wherein the first gate electrode comprises one of tantalum nitride and titanium nitride, and the second gate electrode comprises tungsten.

5. The light emitting device as claimed in claim 1, wherein the first gate electrode comprises tungsten, and the second gate electrode comprises aluminum.

6. The light emitting device as claimed in claim 2, wherein the first gate electrode comprises tungsten, and the second gate electrode comprises aluminum.

7. The light emitting device as claimed in claim 1, wherein the n-type

impurity region (a) includes an n-type impurity element in concentrations from 1×10^{20} to 1×10^{21} atoms/cm³, the n-type doped region (b) includes an n-type impurity element in concentrations of from 2×10^{16} to 5×10^{19} atoms/cm³, and the n-type doped region (c) includes an n-type impurity element in concentrations from 1×10^{16} to 5×10^{18} atoms/cm³.

8. The light emitting device as claimed in claim 2, wherein the n-type impurity region (a) includes an n-type impurity element in concentrations from 1×10^{20} to 1×10^{21} atoms/cm³, the n-type doped region (b) includes an n-type impurity element in concentrations of from 2×10^{16} to 5×10^{19} atoms/cm³, and the n-type doped region (c) includes an n-type impurity element in concentrations from 1×10^{16} to 5×10^{18} atoms/cm³.

9. The light emitting device as claimed in claim 1, wherein the gate electrode is covered by an insulating film in which a resin film and one of a silicon nitride film and a silicon oxynitride films are laminated.

10. The light emitting device as claimed in claim 2, wherein the gate electrode is covered by an insulating film in which a resin film and one of a silicon nitride film and a silicon oxynitride films are laminated.

11. The light emitting device as claimed in claim 9, wherein a coloring layer is provided on the one of the silicon nitride film and the silicon oxynitride film, and the resin film is provided so as to cover the coloring layer.

12. The light emitting device as claimed in claim 10, wherein a coloring layer is provided on the one of the silicon nitride film and the silicon oxynitride film, and the resin film is provided so as to cover the coloring layer.

13. The light emitting device as claimed in claim 1, wherein the light emitting device is selected from the group consisting of an EL display, a video camera, a digital camera, a portable computer, a personal computer, a portable telephone, and a car audio stereo.

14. The light emitting device as claimed in claim 2, wherein the light emitting device is selected from the group consisting of an EL display, a video camera, a digital camera, a portable computer, a personal computer, a portable telephone, and a car audio stereo.

15. A method of manufacturing a light emitting device comprising:
a first step of forming a semiconductor film on a insulating material;
a second step of forming an insulating film covering the semiconductor film;
a third step of forming a conductive film on the insulation film by laminating two or more conductive layers;
a fourth step of forming a gate electrode by etching the conductive film;
a fifth step of adding an n-type impurity element to the semiconductor film using the gate electrode as a mask;
a sixth step of etching a side face of the gate electrode before selectively etching a first portion of the gate electrode;
a seventh step of adding an n-type impurity element to the semiconductor film after the sixth step through a second part of the gate electrode using the gate electrode except the second portion as a mask;
a eighth step of forming an insulating film covering the gate electrode;

a ninth step of forming wirings on the insulating film formed in the eighth step to be in contact with the semiconductor film; and

a tenth step of forming a light emitting element on the insulating film formed in the eighth step.

16. The method of manufacturing a light emitting device as claimed in claim 15, wherein the conductive film is formed by laminating a film comprising tungsten on one of a film comprising tantalum nitride and a film comprising titanium nitride.

17. The method of manufacturing a light emitting device as claimed in claim 15, wherein the conductive film is formed by laminating a film comprising aluminum on a film comprising tungsten.

18. The method of manufacturing a light emitting device as claimed in claim 15, wherein the gate electrode formed in the fourth step is formed to have a tapered side.

19. A method of manufacturing a light emitting device comprising:
a first step of forming a semiconductor film on a insulating material;
a second step of forming an insulating film covering the semiconductor film;
a third step of forming a conductive film on the insulation film by laminating a first conductive film and a second conductive film;
a fourth step of forming a gate electrode which comprises a first gate electrode comprising the first conductive film and a second gate electrode comprising the

second conductive film by etching the conductive film;

a fifth step of adding an n-type impurity element to the semiconductor film using the first gate electrode and the second gate electrode as a mask;

a sixth step of etching the first gate electrode and the second gate electrode before selectively etching the second gate electrode;

a seventh step of adding an n-type impurity element to the semiconductor film after the sixth step through a part of the first gate electrode using the selectively etched second gate electrode as a mask;

a eighth step of forming an insulating film covering the gate electrode ;

a ninth step of forming wirings on the insulating film formed in the eighth step to be in contact with the semiconductor film; and

a tenth step of forming a light emitting element on the insulating film formed in the eighth step.

20. The method of manufacturing a light emitting device as claimed in claim 19, wherein a film comprising one of tantalum nitride and titanium nitride is used as the first conductive film, and a film comprising tungsten is used as the second conductive film.

21. The method of manufacturing a light emitting device as claimed in claim 19, wherein a film comprising tungsten is used as the first conductive film, and a film comprising aluminum is used as the second conductive film.

22. The method of manufacturing a light emitting device as claimed in claim 19, wherein the first gate electrode and the second gate electrode formed in the fourth step are formed to have tapered sides.

23. The method of manufacturing a light emitting device as claimed in claim 15, wherein the insulating film formed in the eighth step includes a coloring layer.

24. The method of manufacturing a light emitting device as claimed in claim 19, wherein the insulating film formed in the eighth step includes a coloring layer.

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